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**NUMBER PORTABILITY  
REQUIREMENTS OF THE  
TELECOMMUNICATIONS ACT OF 1996**

**April 30, 1996**

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## INTRODUCTION

As a competitive provider of local telecommunications services, MFS Communications Company, Inc. ("MFS") strongly supports efforts to promote customer choice and competition in telecommunications markets. Promoting number portability is critical to the development of competition in local telephone markets. The prominence of number portability provisions of the Telecommunications Act of 1996 ("Act") highlights the importance of this issue to the development of competition.

The Act imposes very specific requirements for the implementation of permanent number portability and for the apportionment of the costs therein. Additionally, the Act requires Bell Operating Companies ("BOCs") to provide interim number portability immediately, until such time as permanent database-driven number portability is implemented. This paper is intended to clarify and explain the specific requirements and implications of the Act with respect to both permanent and interim number portability.

### **I. PERMANENT NUMBER PORTABILITY MUST BE IMPLEMENTED AS SOON AS "TECHNICALLY FEASIBLE"**

The Act creates a duty for all local exchange carriers "to provide, to the extent technically feasible, number portability in accordance with requirements prescribed by the Commission."<sup>1</sup> The Act defines the term "number portability" as:

"[T]he ability of users of telecommunications services to retain at the same location, existing telecommunications numbers without impairment of quality, reliability, or convenience when switching from one telecommunications carrier to another."<sup>2</sup>

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<sup>1</sup> U.S.C. §251(b)(2)

<sup>2</sup> U.S.C. §3(a)(46)

Further, the Act specifies the method for recovering the costs of permanent number portability:

"The cost of establishing telecommunications numbering administration arrangements and number portability ***shall be borne by all telecommunications carriers on a competitively neutral basis*** as determined by the Commission."<sup>3</sup>

As explained below, technically-feasible methods for providing permanent number portability are available today. Additionally, according to the definition of number portability contained in the Act, terminating compensation on traffic to ported numbers must be collected in full by the customer's chosen local exchange carrier. Further, competitively neutral recovery of costs requires separate treatments for general costs and carrier-specific costs. Finally, in order to ensure the goal of competitive neutrality is achieved, incumbent local exchange carriers must be specifically prevented from shifting their number portability-associated costs onto other carriers.

#### **A. Permanent Number Portability Is "Technically Feasible" Today**

As noted by the Federal Communications Commission in its Notice of Proposed Rulemaking on Number Portability,<sup>4</sup> there are several proposals to implement full number portability<sup>5</sup> and at least three different call processing solutions for routing telephone calls in a number portability environment, all involving some sort telephone number database

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<sup>3</sup> U.S.C. §251(e)(2). [emphasis added]

<sup>4</sup> *In the Matter of Number Portability*, Notice of Proposed Rulemaking, CC Docket No. 95-116, RM 8535, 10 FC<sup>2</sup> U.S.C. §251(e)(2). [emphasis added]

<sup>4</sup> *In the Matter of Number Portability*, Notice of Proposed Rulemaking, CC Docket No. 95-116, RM 8535, FCC Rcd 12350 (Released July 13, 1995). ("Notice")

<sup>5</sup> Notice at ¶¶ 36 - 42.

query.<sup>6</sup> A number of states have actively set about the task of implementing full number portability in their jurisdictions. Out of these processes, the emerging standard for number portability is clearly Location Routing Number ("LRN"), as pioneered by efforts in Illinois, New York, Maryland, Georgia, and several other states.<sup>7</sup> Based on these state experiences, it is clear that number portability, in the form of LRN, is technically-feasible today, and regulators should direct the industry to move ahead immediately to implement that form of number portability in all LATAs where competitors are present. On a going forward basis, the industry should be required to fully implement LRN number portability in a given LATA no later than 18 months after the first NXX code assigned to a competitive LEC's switch is listed in the Local Exchange Routing Guide ("LERG"), or equivalent industry routing publication, associated with that area.

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<sup>6</sup> Notice at ¶¶ 43-47. The Commission described three scenarios. The Terminating Access Provider ("TAP") scenario placed the burden of doing the database query for call routing on the terminating access provider. The Originating Access Provider ("OAP") scenario placed the burden of doing the database query on the originating access provider. The N-1 scenario placed the burden of doing the database query on the carrier immediately prior to the terminating service provider. For local calls, under the N-1 scenario, the originating carrier would query the database. For interLATA calls the interexchange carrier would query the database.

<sup>7</sup> LRN technology involves a 10 digit routing number that identifies the end office that serves a customer in addition to a 10 digit telephone number. Thus, when a customer changes service providers she keeps her 10 digit telephone number but changes her 10 digit routing number. The New York Commission recently released a report concluding that LRN is the emerging standard for number portability. *Re: Provision of Universal Service, Case 94-C-0095* (Released Jan. 4, 1996). The study was performed by the Number Portability Trial Steering Committee and is reproduced in the Commission's order as Attachment A. Similarly, the Georgia Commission ordered LRN for number portability. *Local Telephone Number Portability Under Section 2 of the Telecommunications Competition and Development Act of 1995*. Order, Docket 5840-U (Feb. 20, 1996).

**B. Under Permanent Number Portability, All Terminating Compensation Must Flow to the Customer's Chosen Local Exchange Carrier**

As cited above, the Act specifically defines "number portability" as the ability of end users to retain telephone numbers when switching between carriers "without impairment of quality, reliability, or convenience". Unless such retention of numbers is accompanied by the full transference of terminating compensation to the end user's chosen carrier, there will in fact be substantial impairment of quality, reliability and convenience to both the carrier and the end user. The adverse impacts on the carrier are obvious. However, the impacts on the end user are only a little less obvious. Although MFS does not expect this to be as significant an issue with the implementation of permanent number portability as it is with interim number portability, it is still important to establish now that all terminating compensation must flow through to the customer's local service provider.

Clearly, in the absence of terminating compensation, carriers will be less attracted to serving end users who require number retention, and will be less capable of providing lower rates and innovative services, since the absence of such compensation will severely constrain the financial returns on serving such customers. This will doubtless impact the scope and scale of service offers provided to number portable customers in comparison to non-number portable customers. Thus, merely enabling a customer to retain its telephone number when it changes carriers without simultaneously allowing the customer's chosen carrier to realize the full financial benefits it would otherwise realize for a similarly situated non-portable customer, would not satisfy the definition of number portability contained in the Act. For this reason, we must conclude that the Act requires

full receipt of terminating compensation, whether directly or on a pass-through basis, for all number portable traffic.

**C. Number Portability Costs Must be Recovered On a Competitively-Neutral Basis**

**1. Competitive Neutrality Requires Different Treatments of "General Costs" and "Carrier-Specific Costs" of Number Portability**

The Act requires that the costs of "number portability shall be borne by all telecommunications carriers on a competitively neutral basis." In establishing the cost recovery mechanism for number portability costs, the Commission must identify and distinguish between two sets of costs. The first set, General Costs, is composed of all those costs incurred to establish, maintain and administer the general industry-wide number portability database platform(s) and associated facilities, procedures and administrative mechanisms. The second set, Carrier-Specific Costs, are those costs which each individual carrier may, to some extent or another, incur in order to conform or enhance its own network platforms, systems and facilities, its own operating, signaling and routing procedures, or its own operational and administrative support systems to the general industry-wide number portability platform system. In order to satisfy the terms of the Act, the first set of costs, General Costs, must be recovered from all telecommunications carriers via a uniform percentage surcharge on the net telecommunications service revenues of each telecommunications carrier, while the second set of costs, Carrier-Specific Costs, must be the sole responsibility of each individual telecommunications carrier.

## **2. "General Costs" Must be Apportioned Among All Telecommunications Carriers Based on Net Revenues**

The Telecommunications Act is unambiguous in requiring that the costs shall be spread among all telecommunications carriers and not borne by a single class of carriers (e.g., local telephone carriers), a segment of the market (e.g., only carriers whose customers use number portability), or some set of carriers' customers. Thus, for example, mechanisms that would recover costs of number portability exclusively from carriers that use number portability, such as a charge per ported telephone number, would not comply with the requirements of the Act since those carriers are not all carriers. Similarly, recovering number portability costs on the basis of all active telephone numbers or on active exchange lines, would also be inappropriate, since such a mechanism would only recover costs from local exchange carriers, and not on all telecommunications carriers as required by the plain language of the Act.

In order to satisfy the competitive neutrality requirements of the Act, a mechanism must be established whereby each telecommunications carrier will contribute toward the general costs of number portability in direct proportion to that carrier's total telecommunications service revenues, net of its payments to other telecommunications carriers for intermediary telecommunications services the carrier employs in its delivery of revenue-generating services. In practice, each carrier's assessment would be based on its total telecommunications service revenues less its payments for items such as switched access, interconnection, unbundled network elements, and reciprocal compensation, and payments for bundled services it resells.



As all revenues of all carriers will be subject to the same allocation mechanism, each carrier will contribute to the funding of general costs in exactly the same proportion. The netting of payments for intermediary telecommunications services is necessary to avoid multiple assessments on services which are incremental to final products or which are resold one or more times. In this manner, each carrier's contribution toward general number portability costs will be based proportionally on the added-value it delivers into the telecommunications marketplace, as measured by the net (i.e., incremental) revenue it derives. Economists have long favored value-added assessment mechanisms due to the fact such mechanisms ensure maximal neutrality and impose the absolute minimum distortions on competitive market dynamics. Thus, this mechanism uniquely satisfies the requirements of the Act.

### **3. Each Individual Carrier Must be Made to Solely Bear its Own "Carrier-Specific Costs"**

As a general matter, the only way in which to ensure a competitively neutral recovery of the second set of costs, Carrier-Specific Costs, is to require that each carrier be individually responsible for conforming its own network to the industry-wide shared/common systems. Indeed, regulators should prohibit a carrier from attempting to, directly or indirectly, recover from other carriers the costs of conforming its own network to industry-wide number portability system. Just as every carrier today is responsible for conforming its own network to the North American Numbering Plan, or any other industry-wide numbering initiatives or standards, it is entirely appropriate that carriers bear their own network costs associated with number portability. This is in-line with the operations of the competitive market. For example, in the auto industry, when air bags were

mandated by Federal law. Ford, GM and all auto manufacturers were required to change their production lines to accommodate the new requirement. Ford could not require that Toyota pay a charge designed to cover Ford's costs of upgrading its production line.

**4. Specific Requirements Must be Implemented to Ensure Incumbent Local Exchange Carriers Do Not Attempt to Inappropriately Shift Their Share of "General Costs" or Their Own "Carrier-Specific Costs" onto Other Telecommunications Carriers**

When number portability is implemented, every carrier will have its own Carrier-Specific costs and its share of General Costs. It would be contrary to the Act's requirements of competitive neutrality if those costs could be recovered from competitors. For example, it would obviously not be competitively neutral if incumbent local exchange carriers simply inflated the interconnection charges or access charges paid by their competitors to recoup their individual number portability costs.

Carriers should have broad latitude for recovering their individual number portability costs and ILECs should be allowed to treat their Carrier-Specific Costs and their share of General Costs as exogenous for purposes of adjusting price caps. However, to enforce the Telecommunications Act's requirements of competitive neutrality, the Commission should prohibit ILECs from recovering number portability costs from access charges, compensation charges, interconnection charges, unbundled element charges, or charges for any services sold exclusively to other telecommunications carriers. Said differently, a carrier should look to services sold to end-users and not to services sold to competitors for recovery of its number portability costs. However, to the extent such costs are allocated to general end user services, such allocations should not be considered as "avoided" in the process of setting wholesale rates pursuant to §§251(c)(4) and 252(d)(3)

## **II. INTERIM NUMBER PORTABILITY WHICH APPROXIMATES PERMANENT NUMBER PORTABILITY MUST BE IMMEDIATELY IMPLEMENTED UNTIL PERMANENT NUMBER PORTABILITY IS FULLY AVAILABLE**

In underscoring the critical importance of number portability in reducing the market power of incumbent local telephone companies, the Act requires that BOCs immediately provide "interim number portability through remote call forwarding, direct inward dialing trunks, or other comparable arrangements, with as little impairment of functioning, quality, reliability, and convenience as possible," (47 U.S.C. §271©(2)(B) [emphasis added]) until permanent number portability is fully available. However, merely making remote call forwarding ("RCF") and direct inward dial ("DID") services available to competitors under the terms those services are made available to end users, will not satisfy the Act. In addition, interim number portability must be made to approximate permanent number portability with respect to terminating compensation and cost recovery.

### **A. Interim Number Portability Must Approximate Permanent Number Portability With Respect to Terminating Compensation**

As cited above, the Act requires that interim number portability be made available "with as little impairment of functioning, quality, reliability, and convenience as possible". Unless RCF and DID arrangements are accompanied by the full transference of terminating compensation to the number portable end user's chosen carrier, so as to approximate permanent number portability, there will in fact be substantial impairment of quality, reliability and convenience to both the carrier and the end user. The adverse impacts on the carrier are obvious. However, the impacts on the end user are only a little less obvious. Clearly, in the absence of terminating compensation, carriers will be less attracted to serving end users who require interim number portability, and will be less

capable of providing lower rates and innovative services, since the absence of such compensation will severely constrain the financial returns on serving such customers. This will doubtless impact the scope and scale of service offers provided to number portable customers in comparison to non-number portable customers. Thus, merely enabling a customer to retain its telephone number when it changes carriers without simultaneously allowing the customer's chosen carrier to realize the full financial benefits it would otherwise realize for a similarly situated non-portable customer, would not satisfy the requirements for interim number portability contained in the Act. For this reason, we must conclude that the Act requires full receipt of terminating compensation, whether directly or on a pass-through basis, for all traffic in an interim number portability environment, just as it does in a permanent number portability environment.

**B. Interim Number Portability Must Approximate Permanent Number Portability With Respect to Cost Recovery**

Additionally, in requiring that costs of number portability be borne by all telecommunications providers, the Act does not distinguish between permanent and interim number portability. Thus, the Act requires that the same funding mechanism apply to interim and permanent number portability. If interim number portability was priced on a per call, per minute or per line basis pursuant to the common tariffed charges for RCF or DID services, or other special charges paid exclusively by either the number portable end user or its chosen carrier, those number portability charges would be borne by only competitive local exchange carriers in violation of the Act's requirements that the costs of number portability be borne by all telecommunications carriers.

Further, as noted above, one of the attributes of permanent number portability is that the costs are to be borne by all telecommunications carriers on a competitively neutral basis. The Act's requirement that interim number portability be provided "with as little impairment of functioning, quality, reliability, and convenience as possible", will not be satisfied if interim number portability diverges from permanent number portability in this basic attribute of cost recovery. Given that a major characteristic of "number portability" is that it is to be provided with no unique charges to the carrier or customer employing "permanent number portability", imposition of such charges for "interim number portability" would necessarily constitute a significant impairment of "quality" and "convenience" vis-a-vis "permanent number portability". Thus, we must conclude that the Act prohibits such charges in an "interim number portability" environment as well.

Finally, interim number portability should be recognized as an inferior, stopgap number portability solution. Even absent the requirements of the Act related to general cost recovery for number portability and for minimal impairment of service under interim number portability, because interim number portability degrades the service of new entrants, as a matter of policy, and to provide incentives for incumbent local exchange carriers to implement permanent number portability, interim number portability should be provided at no cost to the new entrant.

For all these reasons, the same funding mechanism which is to be employed to fund permanent number portability on the basis of percentages of net telecommunications service revenues, should be employed to recover costs of interim number portability. Regulators should establish and recognize incremental costs of providing interim number portability for both RCF and DID methods. Each LEC which provides interim number

portability to another LEC should be allowed to draw from the fund an amount equal to the number of interim number portability arrangements it provides times the recognized incremental costs of each arrangement as defined by regulators.

## **CONCLUSION**

Since number portability is critical to the development of robust competition in the local market and is clearly feasible, the industry should now focus on implementing permanent number portability as quickly as possible and with a cost recovery mechanism that satisfies the Telecommunications Act. Until such point as a permanent portability architecture is implemented, interim solutions provided by incumbent local exchange carriers must be provided in a manner that satisfies the act as well, and costs must be borne by all telecommunications carriers and the local service provider must receive the entirety of terminating compensation.